

baseband. The FFE 110 is suitably constructed as either a 64-tap real FFE, for VSB applications, or a 16-tap complex FFE when used in connection with QAM modulated signals. Carrier phase alignment and/or carrier frequency/phase alignment is performed in a mixer 112 which receives signals from the FFE 110 and combines them with a timing reference signal developed by a timing reference circuit 114 such as a numerically controlled oscillator (NCO) a voltage controlled oscillator (VCO) or a direct digital frequency synthesizer (DDDFS). Timed signals are then provided to a slicer 116 operating in conjunction with a decision feedback (DFE) block 118 which, in combination, provide hard decision information on constellation states as well as error information relating to differences between actual signal trajectory relative to an ideal signal trajectory.

In the Claims:

Please cancel claims ~~1-9 and 11-104~~. Claim 10 remains unchanged and is included herein for reference purposes.

10. A digital communication system, comprising:

a front end receiving an input spectrum at an intermediate frequency, the input spectrum including an inserted predetermined frequency component;

first and second nested tracking loops, the first loop acquiring carrier frequency lock in operative response to the predetermined frequency component of the received spectrum, the second loop providing a signal adapted to position the spectrum at a predetermined location relative to baseband in operative response to said predetermined frequency component; and

a third tracking loop coupled to define a symbol timing parameter in operative response to said same predetermined frequency component.

REMARKS

A Request for Continued Prosecution, an IDS, and the applicable fee were filed on November 21, 2001.